



PATENT

INVENTOR(S) : Torabi

TITLE : **VIRTUAL REALITY SYSTEMS AND METHODS**

APPLICATION NO. : 09/933,582

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EXAMINER : Alicia Baturay

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Case Name/No. Torabi 6

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. Applicants respectfully submit the following 5 pages including reasons for requesting a Pre-Appeal Review of the above-captioned matter.

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I hereby certify that this correspondence (and any item referred to herein as being attached or enclosed) is (are) being	
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Express Mail Label No.: EV US	Signature: <i>Iris E. Weber</i>
Date: <i>June 1, 2007</i>	Name: Iris E. Weber

The Present Application

The present application is directed toward virtual reality systems and methods wherein virtual reality environment (VRE) user equipment (VUE) includes wireless devices such that one or more mobile users at a plurality of locations may simultaneously participate in a virtual reality episode. The systems can include elements (e.g., VRE episode management entity (VEME), VRE episode control entities (VECE) (both serving and proxy) and VRE access systems (VAS)) that maintain information regarding the location of users and/or VRE user equipment (VUE) associated with the user or subscriber during a virtual reality episode and communication links associated therewith and, thereby allow a VRE episode participant to travel over a wide geographical area while participating in a virtual reality episode. For example, a VAS provides wireless connectivity for a VUE to the virtual reality system. For instance, a hand-off function is performed when the user and/or VUE move between systems. The virtual reality user equipment (VUE) transmits and/or receives, among other things, real world video data.

A more detailed summary of the present invention is provided in Applicant's Response 4 (After Final), which was mailed April 3, 2007 (hereinafter Response 4) on pages 2 and 3. The attention of the reviewers is respectfully directed thereto.

The Cited References

The primary reference of the Office Action to Filo allegedly discusses a Virtual Command Post (Title). The Virtual Command Post is generated in a system of networked terminal apparatus for creating a three-dimensional animated work environment wherein terminal users of various levels of emersion are depicted as avatars in the virtual work environment.

Filo seeks to avoid real world travel and set up (e.g., column 2, lines 48-54). Therefore, Filo provides simulated Virtual Command Posts that exist as software and data on a network. The systems and methods of the present application seek to provide virtual reality episodes including real world participants while they travel. Accordingly, the present application discloses and claims system elements and methods that are not contemplated by Filo, even in combination with Barnes and the other secondary documents and the Office Actions include clear errors where they make contrary assertions.

Clear Errors

For instance, the Office Actions assert that the user equipment of Filo sends and receives real world video data as recited, for example, in claim 1 of the present application. This error is addressed, for example, in Applicant's Response 4, beginning at the bottom of page 6 - the top of page 8. This error is repeated in the Advisory Action that was mailed April 23, 2007. Beginning in the fourth line of the first paragraph responding to allegedly arguments of the Applicant, the Advisory Action makes reference to real-world video data and then summarizes portions of column 3, lines 2-37, and column 6, line 63 - column 7, line 12, of Filo. However, even the summary of the cited portions included in the Advisory Action does not disclose or suggest that the system of Filo

captures or transfers real world video data. Accordingly, the Office Actions, including the Advisory Action, include clear errors and claim 1, as well as claims 2-8, which depend therefrom, is not obvious in view of Filo, even in combination with Barnes, and Pre-Appeal Brief Review is respectfully requested.

Another clear error in fact of, for example, the final Office Action, relative to claim 1, is the assertion in the bottom portion of page 3, that Filo discloses a virtual reality system wherein the core system is in communication with at least two virtual reality subscriber databases (VSD), one of which has a relatively local location and at least one of which having a relatively remote location. In support of this assertion, the Office Action cites column 6, lines 33-52, of Filo. However, while the cited portion includes the phrase --local network-- and the phrase --remote VCPs--, the cited portion does not disclose or suggest a subscriber database. Moreover, the cited portion does not disclose or suggest at least two subscriber databases. Still furthermore, the cited portion of Filo does not disclose or suggest a relatively local subscriber database and at least one relatively remote subscriber database. Furthermore, the cited portion of Filo does not disclose or suggest at least two virtual reality environment subscriber databases, one of which has a relatively local location and at least one of which has a relatively remote location, the core system being operative to access the relatively local VSD, to retrieve respective subscription information of the at least one VUE if the core system is a respective home core system of the at least one VUE, and to access at least one of the at least one relatively remotely located VSD to retrieve respective subscription information of the at least one VUE if the core system is a visited virtual reality core system relative to the at least one VUE, as recited, for example, in claim 1 of the present application. This clear error of the Office Action is also discussed, for example, in the middle of page 8 of Applicant's Response 4. The arguments found therein were not addressed in the Advisory Action.

For at least the foregoing reasons, the Office Actions include clear errors and Pre-Appeal Brief Review is respectfully requested.

The final Office Action also asserts that Barnes discloses a core system being operative to function as recited in claim 1 and supports column 12, line 55 - column 13, line 1, in cites of this assertion. However, Barnes is concerned with merged packet service and mobile internet protocol systems and methods and does not disclose or suggest a virtual reality core system or virtual reality subscriber databases. Moreover, the cited portion of Barnes discusses a mobile node 12, which has roamed to location D from location F. The cited paragraph discusses messages exchanged between a foreign agent 272 and a GSN/FA 284. The cited portion does not mention a subscriber database. Moreover, the cited portion does not mention a virtual reality environment subscriber database. Still furthermore, contrary to the assertion of the Office Action, found, for example, just above the middle of page 4, the cited portion of Barnes does not disclose or suggest a core system being operative to access at least one of the at least one relatively remotely located VSD to retrieve respective subscription information of the at least one VUE if the core system is a visited virtual reality core system relative to the at least one VUE.

These clear errors of the Office Actions were discussed, for example, on the top portion of page 8 of Response 4, with regard to claim 1, and in the first full paragraph of page 11, with regard to claim 9. A response to these arguments is not provided in the Advisory Action.

For at least the foregoing reasons, the Office Actions include clear errors and Pre-Appeal Brief Review is respectfully requested.

The bottom portion of page 3 of the Final Office Action also asserts that Filo disclosed a virtual reality environment core system being in wireless communication with the at least one VUE and cites column 6, lines 22-27, of Filo in support of this assertion. However, as explained, for example, at the bottom of page 8 of Applicant's Response 4, with regard to claim 1, and in the middle of page 13, with regard to claim 9, the cited portion of Filo indicates that participants 12, 14, 16 and 18 are radio linked to one another and does not disclose or suggest that users are in wireless communication with a virtual reality core system.

For at least the foregoing additional reasons, the Office Actions include clear errors and Pre-Appeal Brief Review is respectfully requested.

Additionally, it is respectfully submitted that the **Office Action has not met its burden of presenting a *prima facie* case of obviousness**. Barnes is not related to virtual reality environment systems. Filo does not disclose or suggest a need for handing off participants from one VAS to another in support of mobility. Indeed, at column 2, lines 49-54, Filo asserts that the virtual command post saves time by removing the need for the commander or staff to transport, erect and configure tons of equipment. Accordingly, it is respectfully submitted that Filo teaches away from moving from location to location. The alleged motivation for combining subject matter from Barnes with subject matter from Filo proposed by the Office Action: "to allow a mobile node to seamlessly roam between the networks" is allegedly a feature provided by Barnes on its own (column 12, lines 55-60). Therefore, achieving this goal does not provide a motivation for combining subject matter from Barnes with subject matter from Filo. This lack of motivation for combining the references is further addressed at the bottom of page 9, at the bottom of page 13 and toward the bottom of page 17 of Applicant's Response 4. The Advisory Action did not respond to these arguments related to the lack of motivation to combine the references.

For at least the foregoing additional reasons, the Office Actions include clear errors and Pre-Appeal Brief Review is respectfully requested.

Clear errors of the Office Action regarding assertions made regarding the disclosures of Filo and Barnes relative to claim 9 of the present application are discussed, for example, beginning at the bottom half of page 10 - the top of page 14 of Applicant's Response 4. The attention of the reviewers is respectfully directed thereto.

Further in this regard, it is noted that the Advisory Action addresses the argument that -- Filo does not disclose or suggest virtual reality user equipment that is operative to receive virtual reality data representing an actual physical environment-- by citing portions of Filo that discuss data collection with regard to changes in hand and head movements of the executive level user as well as audio input/output means for transmitting and receiving voice data. However, all of these

means collect data regarding a user of the system of Filo and do not capture or transmit video data regarding an actual physical environment. Accordingly, the Office Action, as well as the Advisory Action, includes clear errors and Pre-Appeal Brief Review is respectfully requested.

The Office Action also includes errors with regard to the assertion that Filo discloses a VRE episode management entity such as that recited in **claim 9**. In support of the assertion that Filo discloses this element, the Office Action cites column 6, lines 33-52. However, the referenced portion of **claim 9** indicates that the VRE episode management entity determines that the virtual reality data is associated with the requested virtual reality episode. No such determination is disclosed or suggested by Filo. It is respectfully submitted that in the system of Filo, only one simulation occurs at a time. Furthermore, even if Filo could be construed as disclosing multiple simultaneous simulations, the Office Action, by its reference to column 6, lines 33-52, draws an analogy between the VRE episode management entity of claim 9 and the VCP of Filo. It is respectfully submitted that any given VCP of Filo is associated with only one simulation. Accordingly, the VCP of Filo does not determine that particular virtual reality is associated with a requested virtual reality episode since no such determination is needed. Accordingly, the assertion of the Office Action to the contrary represents clear errors of the Office Action and Pre-Appeal Brief Review is respectfully requested.

Still further in this regard, it is noted that this issue highlights differences between the systems recited in the claims of the present application and the system disclosed by Filo. The systems of the present application support multiple, simultaneous, virtual reality sessions spread over wide geographical spaces and for an unlimited array of purposes. The systems of the present application support, for example, a music student in a first city virtually attending an actual concert taking place in another city or even country. Simultaneously, business men in three separate cities may virtually attend a board meeting taking place in yet a fourth location wherein three-dimensional objects are viewed and discussed. To provide these services, the system of the present application includes means for capturing and transmitting information regarding the environment at some or all of these locations and making it available as virtual reality data to remote participants.

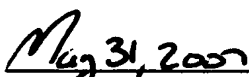
For example, video and audio data are captured of the concert hall environment and provided to the remote student. Video and audio data are captured at the main board meeting location regarding, for example, the three-dimensional objects being observed and discussed at the main location and is made available to the three remote participants. Moreover, the remote participants to these events may be mobile, traveling in cars, planes or other vehicles.

To provide these services and functionality, the present application proposes several new system elements: the virtual reality core system (VCS), virtual reality environment episode management entity (VEME), virtual reality environment subscriber databases (VSD) (aspects of which are recited, for example, in claim 1, claim 16, claim 20) and virtual reality environment access systems (VAS) (e.g., claim 16, claim 17), virtual reality control entities (VECE) (e.g., claims 20, 21) and virtual reality gateways (e.g., claim 22).

The Office Actions assert that all of these elements are to be found in the Virtual Command Post (VCP) of Filo and often cites column 6, lines 12-51, in support of the assertion. For example, the last two responses provided in the Advisory Action assert that functions of both the VCS and VEME are disclosed as being included in the Virtual Command Post in column 6, lines 12-51, of Filo. The final Office Action (on page 3) asserts that virtual reality environment subscriber databases (VSD) are disclosed at column 6, lines 33-52. The Office Action alleges that aspects of a virtual reality access system (VAS) are disclosed at column 6, lines 33-52, and that a second VAS is described at column 6, lines 10-52. Page 12 of the Office Action asserts that aspects of a virtual reality environment control entity (VECE) are disclosed at column 6, lines 33-52. Page 13 alleges that column 6, lines 33-52, disclose a VECE that is operative to relay messages between at least one additional VUE and the VEME according to subscriber information and mobile links. Additionally, page 13 of the Office Action asserts that disclosure of each respective additional VAS providing wireless connectivity for at least one additional VUE if the at least one additional VUE is located in respective geographic region served by the respective additional VAS can be found in column 6, lines 22-27, of Filo, and that disclosure of the additional VAS relaying messages between the at least one additional VUE and a respective one of the at least one additional VECE can be found at column 6, lines 33-52, of Filo. It is respectfully submitted that Filo does not disclose or suggest that the Virtual Command Post of Filo is all of the system elements alleged by the Office Action or that the virtual command post of Filo provides all of the function alleged by the Office Action. Accordingly, the Office Action includes clear errors and Pre-Appeal Brief Review is respectfully requested.

With regard to mobile links, page 12 of the Office Action asserts that column 6, lines 33-52, discloses a VECE relaying messages between the VUE and the VEME according to subscriber information and mobile links. However, the cited portion is silent with regard to subscriber information and does not disclose or suggest mobile links. Additional **errors** of the Office Actions are discussed throughout Applicant's Response 4 including, for example, pages 3-21. In particular, discussion of **errors** related to the rejection of claim 7 can be found on page 10. **Errors** related to the rejections of claims 12-15 are discussed on pages 14 and 15. **Errors** related to the rejections of claims 17 and 18 are discussed on pages 17-19. **Errors** of the Office Actions with regard to the rejections of claims 21 and 22 are discussed on pages 20 and 21 of Applicant's Response 4.

For at least the foregoing reasons, Pre-Appeal Brief Review and reversal of the Examiner's Rejections is respectfully requested.


Date

Respectfully submitted,

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